

Health Advisory:

Information on Tuberculosis Prevention in the Aftermath of Hurricane Katrina

September 8, 2005

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The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

Health Alerts convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

Health Advisories provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

Health Guidances contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

Health Updates provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

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Health Advisory
September 8, 2005

FROM: JULIA M. ECKSTEIN
DIRECTOR
SUBJECT: **Information on Tuberculosis Prevention in the Aftermath of Hurricane Katrina**

The Centers for Disease Control and Prevention (CDC) has issued guidance on tuberculosis detection and prevention for persons impacted by Hurricane Katrina.

Two important recommendations are the following:

- CDC's Division of Tuberculosis Elimination (and the Missouri Department of Health and Senior Services) does not recommend tuberculin skin testing (TST) to screen asymptomatic persons now in evacuation centers or other congregate settings, unless they have been exposed to a person with infectious TB.
- It is not recommended that emergency response healthcare workers (HCWs) and volunteers be tuberculin skin tested (TST) unless they have been exposed to a person with infectious TB.

Additional guidance and other information on tuberculosis from CDC is provided in the following appendices:

Appendix A – Identifying Persons in Your Evacuation Center Who May Have TB

Appendix B – Recommendations for Tuberculin Skin Testing at Evacuation Centers: Evacuees, Healthcare Workers, and Volunteers

Appendix C – Tuberculosis Educational Resources

Questions should be directed to the Missouri Department of Health and Senior Services' Disease Investigation Unit at 573/ 751-6122, or 866/628-9891 (24/7).



TB Guidance for Hurricane Katrina Workers and Evacuees

Identifying Persons in Your Evacuation Center Who May Have TB

In your evacuation center, you should actively assess two groups of persons:

- Persons who were under treatment for TB before the storm
- Persons who currently have symptoms of active TB disease

To assess these persons, you should ask the following questions.

1. Were you taking medicine for TB just before Hurricane Katrina? (If yes, go directly to **Management of Persons Who Were Under Treatment for TB Before the Storm**. If no, proceed with questions 2-5.)

2. Have you coughed up any blood in the last month?

or

3. Do you have a cough that produces mucous that has lasted for at least 2 weeks?

and

4. Have you felt feverish or had chills or profuse sweating (night sweats) for more than one or two weeks?

and

5. Have you lost a lot of weight recently? More than 10 pounds?

(If the person answer "yes" to question 2 or answers "yes" to each of the questions 3, 4, and 5, proceed to **Management of Persons with Symptoms of TB Disease**.)

Management of Persons Who Were Under Treatment for TB Before the Storm

Suggested questions to ask persons who are identified as being treated for TB before the storm:

- Did you **take any medicine** for your tuberculosis?
 - When did you start this medicine? When did you stop? Were you taking medicine when Katrina came? Are you out of medicine?
 - Do you remember the names of the pills? (*If they can't remember, try asking how many different types of pills they were taking for TB.*)
 - Who was giving you the medicine? (Did you go to the health department or pharmacy, or did someone come to you and give you each individual dose?)
- **When** was this diagnosis made?
 - Do you remember if you had to cough up sputum (phlegm from deep inside your lungs) into a cup for your doctor/nurse to send to the lab? (*This would be part of work-up for TB disease.*)
- **Who** prescribed your TB medicine?
 - **Very important: Try to get name/contact info for health department or private provider who prescribed anti-TB treatment (or at least get the county/parish in which person lived).**

For persons whom you suspect as being under treatment for TB disease (not latent TB infection), immediate action is needed. This includes anyone in your evacuation center who was taking more than one medicine for TB or was receiving directly observed treatment for this disease. You should immediately notify one of the following persons:

- In Alabama, Lois Pugh at 334-206-5330.
- In Mississippi, Steve Quilter at 601-576-7700
- In Louisiana, Judy Plough at jplough@dhh.la.gov e-mail is preferred (do not put patient names into emails) or call 337-262-5616.

TB Guidance for Hurricane Katrina Workers and Evacuees

Identifying Persons in Your Evacuation Center Who May Have TB

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- In Texas, Charles Wallace at 512-458-7447.
- If you are in another state, you can use the following link to identify the respective TB control officer: <http://www.cdc.gov/tb/>

If you are unable to reach these points of contact, please call Gail Burns-Grant at the Centers for Disease Control and Prevention, 404-639-8336.

Management of Persons with Symptoms of TB Disease

If anyone in your evacuation center has symptoms of TB disease (that is, if the person answer "yes" to question 2 or answers "yes" to each of the questions 3, 4, and 5 above), contact the state or local health department about this person immediately. If you are unsuccessful in reaching the state or local TB program, please contact Gail Burns-Grant at 404-639-8336.

If the health department determines that this person was potentially contagious while evacuating or staying in the evacuation center, a contact investigation will be needed. This is the process for identifying persons who may have been exposed to this infectious disease and providing any needed follow-up care. The contact investigation is done by the health department in cooperation with the evacuation center staff.

Additional Measures You Can Take to Prevent the Spread of TB

TB is spread when people with TB in their lungs cough or sneeze. Keep plenty of tissues on hand and offer them to clients and staff to cover their cough. Open windows and turn on fans. Fresh air and sunlight will kill the TB germs. **But most importantly, contact your state or local TB program if you suspect someone has TB disease.**

Background Information on Tuberculosis (TB)

What is TB?

Tuberculosis (TB) is a disease caused by bacteria called *Mycobacterium tuberculosis* (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Myco). The bacteria usually attack the lungs. But, TB bacteria can attack any part of the body such as the kidney, spine, and brain. If not treated properly, TB disease can be fatal. TB disease was once the leading cause of death in the United States.

TB is spread through the air from one person to another. The bacteria are put into the air when a person with active TB disease (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Active) of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

However, not everyone infected with TB bacteria becomes sick. People who are not sick have what is called latent TB infection (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Latent). People who have latent TB infection do not feel sick, do not have any symptoms, and cannot spread TB to others. But, some people with latent TB infection go on to get TB disease.

People with active TB disease can be treated and cured if they seek medical help. Even better, people with latent TB infection can take medicine so that they will not develop active TB disease.

How is TB spread?

TB is spread through the air from one person to another. The bacteria are put into the air when a person with active TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

TB Guidance for Hurricane Katrina Workers and Evacuees
Identifying Persons in Your Evacuation Center Who May Have TB
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When a person breathes in TB bacteria, the bacteria can settle in the lungs and begin to grow. From there, they can move through the blood to other parts of the body, such as the kidney, spine, and brain.

TB in the lungs or throat can be infectious. This means that the bacteria can be spread to other people. TB in other parts of the body, such as the kidney or spine, is usually not infectious.

People with active TB disease are most likely to spread it to people they spend time with every day. This includes family members, friends, and coworkers.

The Difference Between Latent TB Infection and Active TB Disease	
A Person with Latent TB Infection (LTBI)	A Person with Active TB Disease
<ul style="list-style-type: none">• Has no symptoms• Does not feel sick• Cannot spread TB to others• Usually has a positive skin test• Has a normal chest x-ray (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Chest) and sputum test <p>May be taking medication to treat this condition (either isoniazid [INH] for 6-9 months or rifampin for 4 months)—these doses are usually self administered</p>	<ul style="list-style-type: none">• Has symptoms that may include:<ul style="list-style-type: none">• a bad cough that lasts longer than 2 weeks• pain in the chest• coughing up blood or sputum• weakness or fatigue• weight loss• no appetite• chills• fever• sweating at night• May spread TB to others• Usually has a positive skin test• May have an abnormal chest x-ray, or positive sputum smear (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Sputum) or culture (http://www.cdc.gov/nchstp/tb/faqs/qa_glossary.htm#Culture) <p>Usually treated with four medicines (isoniazid, rifampin, pyrazinamide, and ethambutol) for at least 2 months, then isoniazid and rifampin for at least another 4 months—these doses are typically administered under directly observed therapy (DOT) by a health department worker</p>

For more information, visit www.bt.cdc.gov/disasters, or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).



TB Guidance for Hurricane Katrina Workers and Evacuees Recommendations for Tuberculin Skin Testing at Evacuation Centers

The following recommendations are meant for Hurricane Katrina evacuation centers that do not have existing tuberculosis (TB) screening policies and procedures; the following recommendations are not meant to supersede established protocols. It is always advisable for an evacuation center to consult with the local or state TB control program when implementing or modifying a TB screening protocol.

CDC's Division of Tuberculosis Elimination does not recommend tuberculin skin testing (TST) to screen asymptomatic persons now in evacuation centers or other congregate settings, unless they have been exposed to a patient with infectious TB.

The rationale against broad-based TST screening goes well beyond a discussion of limited public health resources available to deal with a major disaster. The low positive predictive value of positive TST results in low TB prevalence settings is likely to generate confusion and uncover false positive results. Tuberculin skin testing should be reserved for individuals exposed to a patient with suspected or confirmed infectious TB as part of a contact investigation. Such contact investigations should be conducted by or in conjunction with the local or state TB control program. Tuberculin skin testing should also be used as an adjunct to other diagnostic tests (e.g., chest radiography, microbiologic testing of sputum samples) for persons suspected of having TB disease.

The focus of TB screening in evacuation centers should be to detect persons with TB disease. The intake medical screening should include questions about any history of TB diagnosis or treatment and possible signs and symptoms of TB disease. The CDC's Division of Tuberculosis Elimination (DTBE) has worked with the National Tuberculosis Controllers Association (NTCA) to develop a tool entitled "**TB Guidance for Hurricane Katrina Workers and Evacuees: Identifying Persons in Your Evacuation Center Who May Have TB**," (<http://www.cdc.gov/tb>) aimed at identifying persons suspected of having TB disease. Persons suspected of having TB disease should 1) receive a complete diagnostic evaluation, 2) be reported to the local or state health department, and 3) placed in airborne infection isolation until either a diagnosis of TB disease has been excluded or the patient has been determined to be non-infectious.

CDC's Division of Tuberculosis Elimination does not recommend tuberculin skin testing (TST) of emergency response healthcare workers (HCWs) and volunteers, unless they have been exposed to persons with infectious TB.

HCWs and volunteers usually come from groups already receiving baseline and possibly periodic tuberculin skin testing. Even if the HCW or volunteer has not had a recent TST, it is generally not necessary to routinely repeat the TST upon starting work at an evacuation center.

As with evacuees, tuberculin skin testing should be performed when the HCW or volunteer has been exposed to a patient with suspected or confirmed TB disease. The disaster response activities do provide an educational opportunity to remind these workers and volunteers to "Think TB" and underscore the importance of keeping their TST records up to date (i.e., they should resume their routine periodic tuberculin skin testing according to their employer's regular schedule following disaster relief efforts).

For more information, visit www.bt.cdc.gov/disasters,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).



DISASTER SAFETY

Tuberculosis (TB) Educational Resources

The following list is a compilation of TB resources from the CDC Division of Tuberculosis Elimination and the Regional TB Training and Medical Consultation Centers that may be helpful in TB control and prevention efforts. The resources are listed by category (Shelters, General TB Information, and Contact Investigations).

All of these materials are available online via the links provided; however, if there is an immediate need for hard-copies of these materials, please contact Gabrielle Benenson at 404-639-5320 or via e-mail gkb6@cdc.gov.

Shelters

Shelters and TB: What Staff Need to Know

Abstract

This videotape and guide are designed for shelter staff about how to prevent the spread of TB. This video describes what TB is, how it is spread, what to do when staff suspects someone with TB, how to develop and implement a TB infection control policy, and how shelters and health departments can work together to create a healthy and safe environment for staff and clients.

Francis J. Curry National Tuberculosis Center

3180 18th St, Ste 101
San Francisco, CA 94110-2028
Main Phone: (415) 502-4600
<http://www.nationaltbccenter.edu>

HTML: <http://www.nationaltbccenter.edu/shelters>

TB in Homeless Shelters: Reducing the Risk through Ventilation, Filters, and UV

Abstract

This guideline provides directors and facility managers of homeless shelters and other shelter workers with information on reducing the risk of TB transmission through ventilation, filters, and use of ultraviolet germicidal irradiation.

Francis J. Curry National Tuberculosis Center

3180 18th St, Ste 101
San Francisco, CA 94110-2028
Main Phone: (415) 502-4600
<http://www.nationaltbccenter.edu>

PDF: <http://www.nationaltbccenter.edu/catalogue/downloads/tbhomelesshelters.pdf>

General TB Information (Think TB!)

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Think TB

Abstract

This poster, available in English and Spanish, lists the symptoms of TB.

CDC Division of Tuberculosis Elimination*

1600 Clifton Rd. MS E-10

Atlanta, GA 30333

Main Phone: (404) 639-8135

<http://www.cdc.gov/tb>

HTML: (English) <http://www.cdc.gov/nchstp/tb/pubs/Posters/ThinkTB.htm>

HTML: (Spanish) http://www.cdc.gov/nchstp/tb/pubs/Posters/ThinkTB_span.htm

PDF: (English) <http://www.cdc.gov/nchstp/tb/pubs/Posters/images/NTEngPage.pdf>

PDF: (Spanish) <http://www.cdc.gov/nchstp/tb/pubs/Posters/images/NTSpanPage.pdf>

Questions and Answers about Tuberculosis

Abstract

This material discusses TB transmission, differentiates between latent TB infection and active TB disease, and describes how multidrug-resistant TB develops.

CDC Division of Tuberculosis Elimination*

1600 Clifton Rd. MS E-10

Atlanta, GA 30333

Main Phone: (404) 639-8135

<http://www.cdc.gov/tb>

HTML: <http://www.cdc.gov/nchstp/tb/faqs/qa.htm>

PDF: <http://www.cdc.gov/nchstp/tb/faqs/pdfs/qa.pdf>

TB - General Information (fact sheet)

Abstract

This tuberculosis fact sheet provides basic information about tuberculosis for patients and the general public.

CDC Division of Tuberculosis Elimination*

1600 Clifton Rd. MS E-10

Atlanta, GA 30333

Main Phone: (404) 639-8135

<http://www.cdc.gov/tb>

HTML: <http://www.cdc.gov/nchstp/tb/pubs/tbfactsheets/250010.htm>

Tuberculosis (TB) Educational Resources

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PDF: <http://www.cdc.gov/nchstp/tb/pubs/tbfactsheets/250010.pdf>

Tuberculosis- Get the Facts!

Abstract

This pamphlet, in English and Spanish, provides basic facts about TB transmission, infection, and the tuberculin skin test for patients and the general public.

CDC Division of Tuberculosis Elimination*

1600 Clifton Rd. MS E-10

Atlanta, GA 30333

Main Phone: (404) 639-8135

<http://www.cdc.gov/tb>

HTML: (English) http://www.cdc.gov/nchstp/tb/pubs/pamphlets/getthefacts_eng.htm

HTML: (Spanish) http://www.cdc.gov/nchstp/tb/pubs/pamphlets/getthefacts_esp.htm

PDF: (English) <http://www.cdc.gov/nchstp/tb/pubs/pamphlets/TBgtfctsEng.pdf>

PDF: (Spanish) <http://www.cdc.gov/nchstp/tb/pubs/pamphlets/TBgtfctsSpan.PDF>

Contact Investigations

Tuberculosis Contact Investigations in Congregate Settings: A Resource for Evaluation

Abstract

This resource is designed for use in the evaluation of tuberculosis (TB) contact investigations in congregate settings. It provides explanatory text and tools for assessing health care worker performance and skills as well as programmatic outcomes of contact investigations in congregate settings.

Northeastern National Tuberculosis Center

New Jersey Medical School

225 Warren St

2nd Fl, East Wing, PO Box 1709

Newark, NJ 07103-3620

Main Phone: (973) 972-3270

Toll Free Number: (800) 482-3627

<http://www.umdnj.edu/ntbcweb/tbsplash.html>

HTML: <http://www.umdnj.edu/ntbcweb/tbcontact.htm>

PDF: <http://www.umdnj.edu/ntbcweb/docs/Contact%20Investigations.pdf>

Tuberculosis Education and the Congregate Setting Contact Investigation: A Resource for the Public Health Worker

Abstract

This resource was developed for use by public health workers who provide TB education in congregate setting contact investigations. In addition to explaining how to effectively plan and conduct a successful TB education session, it contains: (1) a PowerPoint presentation on the basics

Tuberculosis (TB) Educational Resources

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of TB; (2) a list of TB-related terms, defined appropriately for lay audiences; (3) frequently-asked-questions (FAQ) sheet specific to contact investigations; (4) a pull-out TB fact sheet; and (5) an evaluation to assess the effectiveness of the TB education session.

Northeastern National Tuberculosis Center

New Jersey Medical School
225 Warren St
2nd Fl, East Wing, PO Box 1709
Newark, NJ 07103-3620
Main Phone: (973) 972-3270
Toll Free Number: (800) 482-3627
<http://www.umdnj.edu/ntbcweb/tbsplash.html>

PDF: <http://www.umdnj.edu/ntbcweb/docs/congregate/CongregateSetting.pdf>

Contact Investigation in a Worksite Toolbox

Abstract

This toolbox compiles instruments and resources for use during a worksite contact investigation. Using these materials, TB control staff will be able to follow step-by-step instructions for contact, implementation, and follow up; develop protocols for inclusion of a worksite in an investigation; and adapt standard templates for local use. The toolbox provides letters, forms, policies, and referenced materials.

Francis J. Curry National Tuberculosis Center

3180 18th St, Ste 101
San Francisco, CA 94110-2028
Main Phone: (415) 502-4600
<http://www.nationaltbcenter.edu>

HTML: <http://www.nationaltbcenter.edu/catalogue/epub/index.cfm?tableName=ciTBox>

Self-Study Modules on Tuberculosis: Modules 6-9 (Module 6: Contact Investigations for Tuberculosis)

Abstract

This instructional packet (and web-based course) includes a series of four print-based modules addressing TB contact investigation, case management, and confidentiality. Module 6 focuses on contact investigations.

CDC Division of Tuberculosis Elimination*

1600 Clifton Rd. MS E-10
Atlanta, GA 30333
Main Phone: (404) 639-8135
<http://www.cdc.gov/tb>

HTML: <http://www.cdc.gov/nchstp/tb/pubs/ssmodules/module6/ss6contents.htm>

HTML: (Web-based course) <http://www.phppo.cdc.gov/phtn/tbmodules/Default.htm>

Tuberculosis (TB) Educational Resources

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PDF: <http://www.cdc.gov/nchstp/tb/pubs/ssmodules/pdfs/6.pdf>

**** If you plan to order these CDC materials for non-emergency related activities, please use the following information to place your order.***

Materials can be ordered in a number of ways:

- By accessing the online order form at www.cdc.gov/nchstp/tb
- By faxing a request for material to the NCHSTP Office of Communications at 404-639-8910
- By mailing a request to the CDC NCHSTP Office of Communications at 1600 Clifton Rd, NE, MS E-07, Atlanta GA 30333.

For additional TB education and training resources, please visit the TB Education and Training Resources Website: www.findtbrresources.org

For more information, visit www.bt.cdc.gov/disasters,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).